



Issue Brief

Waste Tire and Battery Cleanups

Department of Environment and Natural Resources

Synopsis: *The Department of Environment and Natural Resources is accelerating waste tire and battery cleanups across the state as part of Gov. Bill Janklow's Spruce Up South Dakota program. The department is taking two approaches to cleaning up the tires: removing existing tire stockpiles and countywide collection events. Cleanup of waste batteries is also done through countywide collection events. To date, over 1,898,700 stockpiled tires have been removed, 103,610 tires have been collected at collection events, and 237 batteries have been recycled.*

Cleaning Up Waste Tires

Waste tires pose health and environmental risks, and the Department of Environment and Natural Resources (DENR) is working to eliminate waste tires in South Dakota.

DENR is taking two approaches in cleaning up waste tires in South Dakota. The first approach is to remove existing tire stockpiles throughout the state. The second approach is to establish free, one-time countywide collection events for citizens to dispose of their tires.

In both approaches, DENR hires a contractor to haul the tires to an approved facility to be shredded into a size no larger than a two-inch square. The shredded tires are then sent to the Big Stone Power Plant in Big Stone City, SD (near Milbank) to be mixed with coal and burned to generate electricity.

Once completed, the cleanup effort should result in the cleanup of all known waste tire stockpiles in South Dakota. Every citizen will have had the opportunity to get rid of waste tires they have

How Big is the Waste Tire Problem?

An estimated 700,000 waste tires are generated annually in South Dakota. Most people properly dispose of them

through tire retailers when purchasing new tires for their vehicle or at landfills and restricted use sites that are permitted to accept waste tires.

However, the current problem of waste tires has evolved over the years.

Many tires have accumulated in yards and garages over the years, before a safe disposal method was available.

Also, during the 1970s energy crisis, speculators collected waste tires as a possible replacement of oil as a fuel source. While waste tires never replaced oil as a fuel source, the stockpiles remained.

DENR began locating and cleaning up waste tire stockpiles throughout the state in 1996. Identifying the stockpiles is accomplished through concerned citizens contacting the department, DENR staff taking note of stockpiles during travels throughout the state, and county officials notifying staff of stockpiles in their respective counties during countywide events.

Waste Tires Are Health and Environmental Hazards

While waste tires are an obvious eyesore, they are also a hazard to health and the environment:

- **Fire danger** - Tire stockpiles pose a serious fire danger. Once a pile of tires is ignited, it can burn and smolder for weeks and has the potential to start other fires.
- **Air pollution** - The removal of the waste tires eliminates the potential for the tires to be burned intentionally. The open burning of tires results in large amounts of air pollution. This is due to incomplete combustion because of low burning temperatures. (The Big Stone Power Plant burns the tires at extremely high temperatures, which results in lower air emissions.) Burning tires can also contaminate soils, and cause surface water or ground water contamination.
- **Rodent and insect infestation** - Waste tires laying around are an ideal breeding habitat for mosquitoes, snakes, rodents, and other vermin.

Waste Tire Stockpile Cleanups

Once the stockpiles were identified, DENR began hiring contractors to remove the tires. Each landowner was approached about sharing the cost of the removal. When it's been possible, the landowners have shared the cost of the cleanup. In other instances the entire cost was paid by DENR.

As of April 19, 2000, DENR has completed cleanup of over 1,898,700 stockpiled waste tires.

Countywide Tire Cleanups

DENR, in cooperation with county and municipal officials, sponsors one-time, voluntary drop-off events.

The drop-off events allow residents in a county to bring tires to a designated site or multiple sites within the county and drop them off for free.

A contractor hired by the department then hauls away the tires.

As of April 19, 2000, five countywide events have been completed:

County	Dropoff Dates	Tires Collected
Spink	Aug. 27-28, 1999	17,400
Miner	Sept. 10-11, 1999	35,440
Moody	Sept. 17-18, 1999	18,750
Faulk	Oct. 8-9, 1999	10,770
Lyman	Apr. 14-15, 2000	21,250

Total: 103,610

Countywide cleanups are scheduled in the near future for Stanley, Sully, Hughes, Hyde, Hand, Lake, Yankton, Clay, and Union counties.

The department plans to complete the free countywide cleanups in every county of the state by the end of 2001.

Recycling Waste Tires for Energy

After the tires are collected, whether from stockpiles or county drop-off sites, they are shredded and then shipped to Big Stone Power Plant to be burned as a fuel to generate electricity.

Big Stone Power Plant burned 25,000 tons of tire derived fuel (TDF) in 1997. This is equivalent to 2.5 million passenger car tires.

How Can the Problem Be Prevented in the Future?

Most of the estimated 700,000 waste tires generated annually in South Dakota are properly disposed of through local service stations, tire retailers or permitted landfills.

Disposing of waste tires at a retailer or permitted landfill costs a disposal fee of approximately \$2 per tire.

Appropriate disposal sites have contracts to properly dispose of tires and prevent them from accumulating. Most of

the tires generated in South Dakota are shredded and taken to the Big Stone Power Plant

Dumping or open burning of waste tires is prohibited in South Dakota.

Passenger tires, which weigh approximately 20 pounds apiece, are solid waste. Under South Dakota law, dumping of less than 10 pounds of solid waste is littering. Dumping from 10 to 2,000 pounds (from one to approximately 100 passenger tires) is a Class I misdemeanor punishable by up to a \$1,000 fine, one year in jail, or both. Dumping of more than 2,000 pounds (approximately 100 passenger tires) is a Class 6 felony punishable by up to a \$2,000 fine, two years in jail, or both.

Open burning of waste tires is prohibited because it creates air pollution. Anyone who creates air pollution by burning tires is liable for a civil penalty not to exceed \$10,000 per day of violation or for damages to the environment of the state, or both.

Cleaning Up Old Batteries

People do not always have an old battery readily available to turn in when purchasing a new battery. The old battery then winds up behind a garage, barn, or other out-building.

Old batteries have recycling value, and recyclers can dispose of them in an environmentally safe manner. Batteries can be recycled for the plastic and lead, and the acid is either reclaimed or disposed of properly. Some recycling centers and battery retailers will even pay for an old battery

The state will accept old vehicle batteries at the collection event in their county; however, the state will not pay for batteries.

Old Batteries are Dangerous and Hazards to Health and the Environment

Batteries are also an eyesore, and they pose serious hazards to health and the environment.

- **Ground water contamination** - The removal of waste batteries eliminates the potential for lead and acid getting into ground water, which could contaminate the water you drink.
- **Child safety** - Leaking or damaged batteries can cause acid burns or lead exposure, especially to curious children.
- **Corrosion and property damage** - Leaking batteries can cause corrosion and property damage due to the reaction of acid with items nearby.
- **Explosion danger** - Hydrogen gas is given off by batteries. If several batteries are enclosed in a small, poorly ventilated building, explosion is a much greater risk.

Countywide Battery Cleanups

Vehicle batteries are collected in conjunction with countywide tire collections at sites designated by the county.

Once collected, DENR will make arrangements to take the batteries to a recycling facility.

As of April 19, 2000, 237 batteries have been collected.

Funding for Waste Tire and Battery Cleanups

Funding for the tire and battery cleanups comes from \$2.5 million in appropriations during the 1999 and 2000 legislative sessions.

The appropriations are funded in part by a tire assessment of 25 cents per tire, up to a maximum of \$1 per vehicle. The

assessment is paid during vehicle registration.

The tire fee was established by the 1992 Legislature to help fund solid waste and recycling projects in South Dakota.

Additional Resources

Full color maps on waste tire and battery collections and a schedule of upcoming collection events are at the DENR website:

<http://www.state.sd.us/denr/DFTA/WWFunding/tired.htm>

Big stone power plant:

<http://www.otpc.com/who/who-b2a.htm>

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